

REMARKS

Claims 13-24 remain in the application. Claims 13-19 and 24 have been amended.

Claims 13-17 and 19-24 have been rejected as being anticipated by Bao et al. (US 6,150,668) under 35 U.S.C. 102, and claims 13-24 have been rejected as being anticipated by Jackson et al. (US 6,720,572) under 35 U.S.C. 102.

The claims have been amended to even more clearly define the invention. In particular, the claims have been rewritten to more clearly recite that the invention of the instant application, an electrical component which can be a transistor or a diode, comprises two elements, a polymer transistor and a drive circuit.

Claim 13 (similarly claim 24) now recites, inter alia:

An electrical component, comprising:

a polymer transistor ...

a drive circuit set up to provide the first source/drain region with a voltage of sufficiently large magnitude and the gate region with a drain voltage of a sufficiently small magnitude such that the polymer transistor has properties similar or identical to those of a Schottky diode.

(Emphasis added.)

On page 3 and 5 of the Office Action, the Examiner states the following:

Bao et al [Jackson et al.] does not specifically mention providing voltages such that the polymer transistor has properties similar or identical to those of a Schottky diode. However, this is merely an intended use of the structure as taught by Bao et al. [Jackson et al.].

It has been held that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). It would have been obvious to one of ordinary skill in the art at the time of invention to apply external stimuli such as voltages in any manner as best befits the application for which the structure is intended.

(Emphasis added.)

The Examiner is correct, as discussed in MPEP 2114 (E8R3), the manner of operating the device does not, by itself, differentiate an apparatus claim from the prior art. The relevant passage (the only location in the MPEP citing *Ex parte Masham*) states the following:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (The preamble of claim 1 recited that the apparatus was "for mixing flowing developer material" and the body of the claim recited "means for mixing ..., said mixing means being stationary and completely submerged in the developer material." The claim was rejected over a reference which *taught all the structural limitations* of the claim *for the intended use* of mixing flowing developer. However, the mixer was only partially submerged in the developer material. The Board held that the *amount of submersion is immaterial to the structure* of the mixer and thus the claim was properly rejected.).

(Emphasis and underlining added.)

The only reference to a drive circuit in Bao et al. is in the last sentence of the description: "Systems with the device of the present invention will also include appropriate drive circuitry." (This passage was also cited by the Examiner.).

The passage of Jackson et al. cited by the Examiner for disclosing a drive circuit, states the following:

A voltage applied between contacts 18 and 24 sets up an electric field in organic TFT layer 20 and organic LED layer 22. A voltage applied to gate electrode 14 controls this electric field. That is, the voltage on gate electrode 14 controls the brightness of light emitted by LED layer 22. Light emitting device 10 is useful as a pixel in a display.

Consequently, neither Bao et al. nor Jackson et al. discloses (or suggests) a drive circuit set up to provide the first source/drain region with a voltage of sufficiently large magnitude and the gate region with a drain voltage of a sufficiently small magnitude, such that the polymer transistor has properties similar or identical to those of a Schottky diode. Neither Bao et al. nor Jackson et al. disclose (or suggest) a drive circuit with the particular design and set up required "for the intended use" of the transistor as a diode as recited in the claims.

Claims 13 and 24 are, therefore, patentable over Bao et al. and Jackson et al., and because claims 14-23 are ultimately dependent on claim 13, they are patentable as well.

In view of the foregoing, reconsideration and allowance of claims 13-24 are solicited.

In view of the above, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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